

Ziegler, Karl.  
PROCESS FOR PRODUCTION OF HIGH-MOLECULAR  
WEIGHT POLYETHYLENES USABLE AS PLASTICS  
AND CATALYSTS FOR THIS PROCESS. Jan 64.  
Order from RIS \$22.00 RIS-96866  
Polyolefins Set \$750.00

Trans. of Belgian patent 543 913, Jan 55, supplement  
to pat. 534 888, Dec 55. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics, \*Ethylenes,  
Polymerization, Metalorganic compounds, \*Ziegler  
catalysts, \*Aluminum compounds, \*Magnesium com-  
pounds, \*Zinc compounds, Alkyl radicals, \*Uranium  
compounds, \*Thorium compounds, Complex compounds.

Ethylene is polymerized into linear, crystalline poly-  
ethylene of high-molecular weight and true plastics  
character with combination catalysts which contain, in  
lieu of or in addition to organic compounds of aluminum,  
(Materials--Plastics, TT, v. 11, no. 11) (over)

TT-64-12524

- I. Ziegler, K.
- II. Patent (Belgium) 543 913
- III. Patent (Belgium) 534 888,  
suppl.
- IV. RIS-96866
- V. Research Information  
Service, New York

1680822

Office of Technical Services

Ziegler, Karl.  
NEW CATALYSTS FOR POLYMERIZATION OF  
PROPYLENE. Jan 54.  
Order from RIS \$21.00  
Polyolefins Set \$750.00  
RIS-94893

Trans. of Belgian patent 544 576, by Montecatini  
S.G.p.I., Dec 55. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics, \*Propene,  
Polymerization, Metalorganic compounds, \*Ziegler  
catalysts, \*Aluminum compounds, Alkyl radicals,  
\*Iron compounds,

The polymerization process is carried out with  
catalysts obtained by reaction of iron compounds with  
aluminum-organic compounds. (RIS abstract)

(Materials--Plastics, TT, v. 11, no. 11)

TT-64-13496

I. Ziegler, K.  
II. Patent (Belgium) 544 576  
III. RIS-94893  
IV. Research Information  
Service, New York

544576

Office of Technical Services

TT-64-12676

Ziegler, Karl.  
PROCESS AND APPARATUS FOR THE PRODUCTION  
OF DIALKYLALUMINUM HYDRIDES AND TRIALKYL-  
ALUMINUMS [Procédé et Dispositif pour la Fabrication  
d'Hydrures d'Aluminium Dialcoyles et d'Aluminium  
Trialkoyles]. Jan 64 (25p)  
Order from RIS \$45.00 RIS-96644  
Metal Organics Set \$200.00

- I. Ziegler, K.
- II. Patent (Belgium) 546 432
- III. RIS-96644
- IV. Research Information  
Service, New York

Trans. of Belgian patent 546 432, Mar 36. (Abstract  
available)

DESCRIPTORS: \*Metalorganic compounds, \*Ziegler  
catalysts, \*Aluminum compounds, Alkyl radicals,  
Propyl radicals, Ethyl radicals, Hydrides, Synthesis  
(Chemistry).

Aluminum is heated with a trialkylaluminum and hydro-  
gen under a pressure above 20 atm, and the resulting  
(Chemistry--Organic, TT, v. 11, no. 11) (over)

Office of Technical Services

Ziegler, Karl.  
PROCESS FOR REGULATING THE MOLECULAR  
WEIGHT OF SUBSTANTIALLY LINEAR HIGHLY  
CRYSTALLINE HEAD-TO-TAIL OLEFIN POLYMERS.  
Jan 64.

Order from RIS \$27.00  
Polyolefine Set \$750.00

RIS-96733

Trans. of Belgian patent 549 636, by Monsanto,  
Milan, Jul 64.

DESCRIPTORS: \*Polyethylene plastics, \*Alkynes,  
Polymerization, Acetylenic compounds, \*Ziegler  
catalysts, \*Aluminum compounds, Alkyl radicals,

TT-64-12499

- I. Ziegler, K.
- II. Patent (Belgium) 549 636
- III. RIS-96733
- IV. Research Information  
Service, New York

1180828

(Materials - Plastics, TT, v. 11, no. 11)

Office of Technical Services

TT-64-12497

Ziegler, Karl.  
PROCESS FOR PRODUCING HIGH-FUSING POLYMERS  
OF BRANCHED CHAIN  $\alpha$ -OLEFINS. Jan 64.  
Order from RIS \$28.00 RIS-96751  
Polyolefins Set \$750.00

Trans. of Belgian patent 549 891, by Montecatini,  
Milan, Jul 56. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics, \*Alkenes,  
Polymerization, Metalorganic compounds, \*Ziegler  
catalysts,

New high-molecular weight, linear polymers of very  
high mechanical strength and solvent resistance whose  
melting points rise in inverse proportion to the length  
of the fundamental monomer chain and in direct propor-  
tion to the proximity of branching to the terminal double  
bond are obtained from branched-chain  $\alpha$ -olefins with  
Ziegler catalysts. These polymers have considerably  
(Materials--Plastics, TT, v. 11, no. 11) (over)

I. Ziegler, K.  
II. Patent (Belgium) 549 891  
III. RIS-96751  
IV. Research Information  
Service, New York

080829

Office of Technical Services

Ziegler, Karl.  
PROCESS FOR PRODUCTION OF LINEAR POLYMERS  
OF AROMATIC VINYL HYDROCARBONS. Jan 64.  
Order from RIS \$58.00  
Hydrocarbons Set \$75.00  
RIS-94630

Trans. of Belgian patent 555 252, by Monsecatini,  
Milan, Feb 57. (Abstract available)

DESCRIPTORS: \*Styrene plastics, \*Vinyl plastics,  
Styrene, Vinyl radicals, Polymerization, Metal-  
organic compounds, \*Ziegler catalysts.

Ziegler catalysts are used to polymerize styrenes sub-  
stituted in the nucleus with one or more low alkyl groups  
of halogen atoms, as well as certain polynuclear  
aromatic vinyl hydrocarbons, into isotactic products  
very different from the polymers of the same monomers  
obtained by a radical mechanism. Also obtained are  
crystalline high copolymers from dimethylstyrene  
mixtures. (RIS abstract)

TT-64-12580

I. Ziegler, K.  
II. Patent (Belgium) 555 252  
III. RIS-94630  
IV. Research Information  
Service, New York

1250836

(Materials--Plastics,  
TT, v. 11, no. 11)  
Office of Technical Services

Ziegler, Karl.  
TRUE HIGH-MOLECULAR WEIGHT, LINEAR OLEFIN  
COPOLYMERS AND PROCESS FOR THEIR PRODUCTION. Jan 64.  
Order from RIS \$55.00  
Polyolefins Ser \$750.00

RIS-96848

Trans. of Belgian patent 553 655, by Montecatini,  
Milan, Dec 56. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics, Alkenes,  
\*Ethylenes, \*Propenes, \*Butenes, \*Pentenes,  
\*Hexenes, Copolymerization, Metalorganic compounds,  
\*Ziegler catalysts,

A process for obtaining true copolymers of ethylene  
with propylene, *n*-butene, *n*-pentene or *n*-hexene with  
the use of a type catalyst which leads to formation of  
predominantly non-crystalline polymers when used in  
the production of homopolymers of  $\alpha$ -olefins. The  
(Materials-Plastics, TT, v. 11, no. 11)

(over)

TT-64-12501

- I. Ziegler, K.
- II. Patent (Belgium) 553 655
- III. RIS-96848
- IV. Research Information  
Service, New York

1280835

Office of Technical Services

Ziegler, Karl.  
BLOCK POLYMERS OF  $\alpha$ -OLEFINS AND PROCESS  
FOR THEIR PRODUCTION. Jan 54.  
Order from RIS \$40.00  
Polyolefin Set \$750.00

RIS-96752

Trans. of Belgian patent 550 093, by Montecatini,  
Milan, Aug 56. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics, \*Plastic films,  
\*Block polymers, \*Alkenes, Polymerization, Solvents,

Block polymers of extraordinary elasticity and high  
tensile strength attributable to the presence of both iso-  
tactic and non-isotactic portions in the macromolecule  
are obtained by treating certain polyolefin fractions of  
intermediate solubility with special solvents. These  
products yield superior films and sheets when mixed  
with highly crystalline polyolefins of lower elasticity.  
(RIS abstract)

(Materials--Plastics, TT, v. 11, no. 11)

TT-64-12498

I. Ziegler, K.  
II. Patent (Belgium) 550 093  
III. RIS-96752  
IV. Research Information  
Service, New York

1280830

Office of Technical Services



Ziegler, Karl.  
PROCESS FOR IMPROVING THE MECHANICAL  
PROPERTIES AND PROCESSING CHARACTERISTICS  
OF LINEAR HIGH POLYMERS OF PROPYLENE.  
Jan 64.

Order from RIS \$30.00  
Polyolefin Set \$750.00

RIS-96844

TT-64-12321

I. Ziegler, K.  
II. Patent (Belgium) 553 174  
III. RIS-96844  
IV. Research Information  
Service, New York

Trans. of Belgian patent 553 174, by Montecatini,  
Milan, Dec 56. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics, \*Propenes,  
Pyrolysis, Mechanical properties, Processing,

1280833

Linear, crystallizable, head-to-tail polymers of  
propylene with an intrinsic viscosity of about 2 that are  
to be used in the manufacture of products by forming  
operations involving heating are subjected to thermal  
degradation to an intrinsic viscosity of 0.8 to 1.5.  
Products treated in this way exhibit mechanical proper-  
(Materials--Plastics, TT, v. 11, no. 11) (over)

Office of Technical Services

Ziegler, Karl.  
PROCESS FOR PRODUCING PREDOMINANTLY  
AMORPHOUS POLY-1-BUTENE. Jan 64.  
Order from RIS \$21.00  
Polyolefins Set \$750.00

RIS-96900

Trans. of Belgian patent 557 853, by Montecatini,  
Milan, May 57. (Abstract available)

DESCRIPTORS: "Polyethylene plastics, "Butenes,  
Polymerization, Metalorganic compounds, "Ziegler  
catalysts.

Predominantly amorphous linear high polymers of  
 $\alpha$ -olefins are obtained without formation of large propor-  
tions of branched polymers and without costly catalysts  
by addition to the catalyst of a certain inert, finely  
divided substance. (RIS abstract)

(Materials--Plastics, TT, v. 11, no. 11)

TT-64-12502

I. Ziegler, K.  
II. Patent (Belgium) 557 853  
III. RIS-96900  
IV. Research Information  
Service, New York

1280838

Office of Technical Services

Ziegler, Karl.  
NEW CATALYST SYSTEM FOR PRODUCTION OF  
LINEAR, HIGH-MOLECULAR WEIGHT POLYMERS OF  
α-OLEFINS. Jan 64.  
Order form RIS \$42.00  
Polyolefins Set \$750.00

RIS-94902

Trans. of Belgian patent 538 563, by Monsanto,  
Milon, Jan 57. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics; \*Alkynes,  
Polymerization, Metallocenic compounds,  
\*Ziegler catalysts.

New catalyst compositions for amorphous, linear  
polymers of α-olefins of higher molecular weights than  
the polyolefins obtained with previous catalysts. Used  
on granular supports they are well suited for continuous  
polymerization. (RIS abstract)  
(Materials-Plastics, TT, v. 11, no. 11)

TT-64-12308

I. Ziegler, K.  
II. Patent (Belgium) 538 563  
III. RIS-94902  
IV. Research Information  
Service, New York

1280839

Office of Technical Services

Ziegler, Karl.  
THERMOPLASTIC COMPOUNDS WITH IMPROVED  
PROPERTIES FROM POLYOLEFINS. Jan 64.  
Order from RIS \$18.00  
Polyolefins Set \$750.00  
RIS-96909

Trans. of Belgian patent 560 523, by Montecatini,  
Milan, Sep 57. (Abstract available)

DESCRIPTORS: \*Polyethylene plastics, Thermoplastics,  
Alkynes, Mixtures, \*Plastic films.

A specified isotactic polyolefin mixture exhibiting  
physical properties and machinability superior to those  
of isotactic polypropylene alone and, for example,  
yielding films of higher breaking strength. (RIS  
abstract)

(Materials--Plastics, TT, v. 11, no. 11)

TT-64-12505

I. Ziegler, K.  
II. Patent (Belgium) 560 523  
III. RIS-96909  
IV. Research Information  
Service, New York

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Office of Technical Services

Ziegler, Karl.  
PROCESS FOR DIMERIZATION OF OLEFINS. Jan 61.  
Order from RIS \$27.00  
RIS-96543  
Polyolefins Sec \$750.00

Trans. of French patent 1 050 286, Jan 54. (Abstract available)

DESCRIPTORS: \*Petroleum, \*Alkenes, Polymerization, Metalorganic compounds, \*Ziegler catalysts, \*Fuels, \*Oxo process.

Straight-chain, branched, as well as cyclic olefins are dimerized or codimerized with the aid of new metal-organic polymerization promoters. The process is also applicable to mixtures of olefins with saturated or aromatic hydrocarbons and can be used to convert C<sub>3</sub>-C<sub>6</sub> petroleum fractions into a mixture of hydrocarbons with 6-12 C atoms, suitable as motor fuels and as feed stock for the oxo-synthesis, respectively. (RIS abstract)

TT-64-12492

I. Ziegler, K.  
II. Patent (France) 1 050 286  
III. RIS-96543  
IV. Research Information Service, New York

260846

(Chemistry--Organic,  
TT, v. 11, no. 11)  
Office of Technical Services

TT-64-12463

[Ziegler, Karl].  
PROCESS FOR PRODUCING ALKYLALUMINUM  
HYDRIDES [Verfahren zur Herstellung von Alkyl-  
aluminiumhydriden]. Jan 64 (11p)  
Order from RIS \$14.00 RIS-96232  
Metal Organics Set \$200.00

Trans. of German patent appl. Z 2635, Feb 64.  
(Abstract available)

DESCRIPTORS: \*Metallorganic compounds, \*Ziegler  
catalysts, \*Aluminum compounds, Alkyl radicals,  
Hydrides, Synthesis (Chemistry).

An advantageous two-stage process employing the reac-  
tion of alkylaluminum dihalides or dialkylaluminum  
monohalides and alkali hydrides. (RIS abstract)

(Chemistry--Organic, TT, v. 11, no. 11)

- I. Ziegler, K.
- II. Patent application  
(Germany) Z 2635
- III. RIS-96232
- IV. Research Information  
Service, New York

1260854

Office of Technical Services

[Ziegler, Karl].

PROCESS FOR PRODUCING SODIUM CYCLO-  
PENTADIENE, SODIUM ALKYL AND SODIUM BENZYL  
CYCLOPENTADIENES [Verfahren zur Herstellung von  
Natriumcyclopentadien, Natriumalkyl- und Natrium-  
benzylcyclopentadiene]. Jan 64 [14p]

Order from RIS \$17.50

RIS-96253

Metal Organics Set \$200.00

Trans. of German patent appl. Z 2636, Jul 54.  
(Abstract available)

DESCRIPTORS: \*Metalorganic compounds, \*Cyclo-  
pentadiene, \*Sodium compounds, Alkyl radicals, Benzyl  
radicals, Synthesis (Chemistry)

Convenient manufacturing procedures for producing  
sodium cyclopentadiene from cyclopentadiene and  
metallic sodium or certain sodium compounds, and for  
converting, analogously, alkylated cyclopentadiene into  
their sodium compounds. (RIS abstract)

TT-64-12464

- I. Ziegler, K.
- II. Patent application  
(Germany) Z 2636
- III. RIS-96253
- IV. Research Information  
Service, New York

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(Chemistry--Organic,  
TT, v. 11, no. 11)  
Office of Technical Services

Ziegler, Karl.  
PROCESS FOR PRODUCTION OF HYDROCARBON  
ALUMINUMS. Jan 64.  
Order from RIS \$12.00 RIS-96505  
Metal Organics Set \$200.00

Trans. of German patent appl. Z 3509, 3 May 55.  
(Abstract available)

DESCRIPTORS: \*Metalorganic compounds, \*Ziegler  
catalysts, \*Aluminum compounds, Hydrocarbons,  
Alkyl radicals, \*Fluorides, Alkali metal compounds,  
\*Cryolite.

Cryolite of the solid phase is converted to aluminum  
fluoride by treatment with alkyl or arylaluminum  
halides. (RIS abstract)

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-12481

- I. Ziegler, K.
- II. Patent application  
(Germany) Z 3509
- III. RIS-96505
- IV. Research Information  
Service, New York

1280857

Office of Technical Services



Ziegler, Karl.  
PROCESS FOR PRODUCING DIALKYLALUMINUM  
HYDRIDES. Jan 64.  
Order from RIS \$15.50      RES-96483  
Metal Organics Set \$200.00

Trans. of German patent appl. Z 4269, Nov 55.  
(Abstract available)

DESCRIPTORS: \*Metalorganic compounds, \*Ziegler  
catalysts, \*Aluminum compounds, Alkyl radicals,  
\*Hydrides, Synthesis (Chemistry).

The use of suitable catalysts and reaction conditions  
makes it possible to obtain dialkylaluminum hydrides by  
simple thermal cleavage of trialkylaluminums while  
preventing decomposition of the product. (RIS abstract)

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-12674

I. Ziegler, K.  
II. Patent (Germany) Z 4269  
III. RES-96483  
IV. Research Information  
Service, New York

1280858

Office of Technical Services

Ziegler, Karl.  
PROCESS FOR PRODUCTION OF VOLATILE  
POLYMERS OF ETHYLENE. Jan 64.  
Order from RIS \$12.50 RIS-96833  
Polyolefins Set \$750.00

Trans. of German patent appl. Z 4857, Nov 57.  
(Abstract available)

DESCRIPTORS: \*Butenes, \*Hexenes, Synthesis  
(Chemistry), \*Ethylenes, Polymerization, Metal-  
organic compounds, \*Ziegler catalysts, \*Aluminum  
compounds, Alkyl radicals, \*Titanium compounds,  
\*Zirconium compounds,

Ethylene is polymerized with catalysts consisting of  
mixtures of trialkylaluminums with esters of thionic or  
zirconic acid to produce volatile polymers that consist  
primarily of butene but contain hexene and its  
homologs as well. (RIS abstract)  
(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-12523

- I. Ziegler, K.
- II. Patent application  
(Germany) Z 4857
- III. RIS-96833
- IV. Research Information  
Service, New York

1260859

Office of Technical Services

Ziegler, Karl.  
NEW METHYLENE COMPOUNDS OF LITHIUM AND  
MAGNESIUM. Jan 64.  
Order from RIS \$12.75 RIS-96595  
Metal Organics Set \$200.00

Trans. of German patent appl. Z 4846, 23 Aug 56.  
(Abstract available)

DESCRIPTORS: \*Metalorganic compounds, \*Ziegler  
catalysts, \*Lithium compounds, \*Magnesium com-  
pounds, \*Methylene, Synthesis (Chemistry).

Methylithium or dimethylmagnesium is heated in the  
absence of air to form new methylene compounds of  
lithium and magnesium that are highly effective  
catalysts for the polymerization of ethylene. (RIS  
abstract)

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-12400

- I. Ziegler, K.
- II. Patent application  
(Germany) Z 4816
- III. RIS-96595
- IV. Research Information  
Service, New York

1250860

Office of Technical Services

Ziegler, Karl and Gellert, Hans-Georg.  
PROCESS FOR THE PREPARATION OF ORGANO  
ALUMINUM COMPOUNDS, [1964] 17p  
Order from OTS, SLA, or ETC \$1.60 TT-64-14904  
Trans. of German patent application Z 2679 120, 26/113,  
13 May 52.

TT-64-14904

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Patent application  
(Germany) Z 2679

1060862

(Chemistry--Organic, TT, v. 11, no. 11)

Office of Technical Services

Ziegler, Karl.  
PROCESS FOR PRODUCING TRIALKYLALUMINUMS.

Jan 64.

Order from RIS \$13.25

Metal Organics Set \$200.00

RIS-96871

Trans. of German DAS 1 008 733, May 37, appl. Z. 4190  
(Abstract available)

DESCRIPTORS: \*Metalorganic compounds, \*Ziegler catalysts, \*Aluminum compounds, Alkyl radicals, Synthesis (Chemistry).

The reaction of aluminum, olefins and hydrogen in the presence of dialkylaluminum halide catalysts is improved by dividing the preparation of the catalysts and the principal reaction into two successive stages. (RIS abstract)

(Chemistry--Organic, TT, v. 11, no. 11)

TT-64-12477

- I. Ziegler, K,
- II. Patent (Germany) 1 008 733
- III. RIS-96871
- IV. Research Information Service, New York

1160863

Office of Technical Services

[Ziegler, Karl]  
ACTIVATION OF OLEFIN POLYMERIZATION BY  
METAL-ORGANIC COMPOUNDS [Verfahren zur  
Polymerisation und Mischpolymerisation von  
Olefinen]. Jan 64 [24p]  
Order from RIS \$35.00  
Polyolefins Sec \$750.00

RIS-96262

Trans. of German patent 878 560, Apr 53. (Abstract  
available)

DESCRIPTORS: \*Polyethylene plastics, \*Alkenes,  
Polymerization, Metalorganic compounds, \*Ziegler  
catalysts, \*Beryllium compounds, \*Aluminum com-  
pounds, \*Gallium compounds, \*Indium compounds,  
Hydrides,

Beryllium, aluminum, gallium or indium hydrides or  
compounds of these metals with saturated aliphatic or  
aromatic organic radicals are used to activate poly-  
(Materials--Plastics, TT, v. 11, no. 11) (over)

TT-64-12483

- I. Ziegler, K.
- II. Patent (Germany)  
878 560
- III. RIS-96262
- IV. Research Information  
Service, New York

1880871

Office of Technical Services

Ziegler, Karl.  
CONVERSION OF ETHYLENE INTO OLEFINIC  
POLYMERS. Jan 64.  
Order from RIS \$26.50  
Polyolefins Set \$750.00

RIS-96482

Trans. of Italian patent 516 436, Feb 55. (Abstract  
available)

DESCRIPTORS: "Polyethylene plastics, "Ethylenes,  
Polymerization, Metalorganic compounds, "Ziegler  
catalysts, "Aluminum compounds, Alkyl radicals,  
Nickel catalysts, Acetylenes.

A two-stage process for obtaining higher olefins from  
ethylene by first forming higher allyl aluminum from  
triethylaluminum and ethylene and then treating the  
addition products with ethylene in the presence of  
compounds of nickel and acetylene. (RIS abstract)

(Monatsh.-Chem., TT. v. 11, no. 11)

TT-64-12490

- I. Ziegler, K.
- II. Patent (Italy) 516 436
- III. RIS-96482
- IV. Research Information  
Service, New York

1260872

Office of Technical Services

Ziegler, Karl.  
PROCESS FOR CATALYTIC POLYMERIZATION OF  
ETHYLENE TO BUTENE, HEXENE AND OTHER  
HOMOLOGS. Jan 64.  
Order from RIS \$21.00      RIS-96481  
Polyolefins Set \$750.00

Trans. of Italian patent 521 521, Mar 55. (Abstract  
available)

DESCRIPTORS: \*Butenes, \*Hexenes, Synthesis  
(Chemistry), \*Ethylenes, Polymerization, Metal-  
organic compounds, \*Ziegler catalysts, \*Aluminum  
compounds, Alky radicals,

Co-catalysts added to the principal catalyst, which may  
be alkylaluminum, make it easy to obtain almost ex-  
clusively  $\alpha$ -butylene or its higher homologs from  
ethylene at temperatures under 100°C. At 100-120°C  
(Chemistry--Organic, TT, v. 11, no. 11)      (over)

TT-64-12489

- I. Ziegler, K.
- II. Patent (Italy) 521 521
- III. RIS-96481
- IV. Research Information  
Service, New York

1280873

Office of Technical Services



Ziegler, Karl.

THE MÜLHEIM NORMAL PRESSURE POLYETHENE  
PROCESS. [30 Sep 55] 15p.  
Order from SLA \$1.60

62-16731

Trans. of German language article from Max Planck  
Institute for Coal Research, Mülheim/Ruhr, Aug 55.

DESCRIPTORS: "Ethylenes, Polymerization, Pressure.

This paper tells the story of how the "normal pres-  
sure polyethylene process" happened to be discovered  
at the Institute in Muelheim, for this discovery is a  
matter of historical interest and merits preservation.  
(Author)

(Chemistry--Organic, TT, v. 8, no. 5)

62-16731

1. Title: Mulheimer process  
1. Ziegler, K.

0222685

Office of Technical Services

Ziegler, K[arl].  
THE IMPORTANCE OF ALKALI METALLO-ORGANIC  
COMPOUNDS FOR SYNTHESIS. (1968) 20p 33refs  
Order from SLA \$1.60

TT-64-14708

Trans. of Angew[andte] Chem[ie] (Germany) 1936,  
v. 49, no. 28, p. 435-460.

Another trans. is available from K-H \$20.00 as  
K-H-3456-1 (1968) 20p.

TT-64-14708

I. Ziegler, K.

883414

(Chemistry--Organic, TT, v. 11, no. 12)

Office of Technical Services

Ziegler, Karl and Köster, Roland.  
PROCESS FOR THE PREPARATION OF COMPLEX  
COMPOUNDS FROM ALUMINUM ALKYL AND  
ALKALI FLUORIDES [Verfahren zur Herstellung von  
Komplexverbindungen aus Aluminiumkohlenwasser-  
stoffen und Alkalifluoriden]. (1955) (10p) 1 ref  
Order from OTS, SLA, or ETC \$1.10 TT-64-14704

Trans. of German patent application Z 3584, 12 o,  
26/03, filed 25 Jul 53, pub. 3 Feb 55, opposition until  
3 May 55, supplement to patent 925, 348.  
Another trans. is available from RIS \$7.00 as  
RIS-96259, 5p.

(Chemistry--Organic, TT, v. 11, no. 12)

TT-64-14704

- I. Ziegler, K.
- II. Köster, R.
- III. Patent application  
(Germany) Z 3584
- IV. Patent (Germany)  
925 348 suppl.

53314

Office of Technical Services

Ziegler, K[arl] and Gellert, H[ans]-G[erhard].  
DETERMINATION OF THE "ACTIVITY" OF  
ORGANOALUMINUM COMPOUNDS. Pt. 28 of Metal-  
loorganic Compounds. [1961] 5p. 5 refs.  
Order from SILA \$1.10

61-20451

Trans. of [Justus Liebig's] Annalen der Chemie (West  
Germany) 1960, v. 629, no. 1/3, p. 20-22.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Alkyl radicals, Determination.

By "active" aluminorganic compounds we understand  
Al trialkyls and Al dialkylhydrides. It is possible to  
determine them analytically, beside the inactive types  
of the  $R_2AlOH$  kind (which are formed, e.g., through  
autoxidation), by a simple titration method as only the  
active compounds are capable of fixing 1 mole of  
ammonia. (Author) (See also 61-20450)  
(Chemistry--Organic. TT, v. 7, no. 1)

61-20451

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Title: Metalloorganic...

184258

Office of Technical Services

Ziegler, Karl, Gellert, Hans-Georg and others.  
ALUMINUM TRIALKYLS AND DIALKYL ALUMINUM  
HYDRIDES FROM OLEFINS, HYDROGEN, AND  
ALUMINUM Pt. 26 of Metalloorganic Compounds.  
[1961] 26p. 85 refs.  
Order from SLA \$2.60

61-20449

Trans. of [Juntus Liebig] Annalen der Chemie (West  
Germany) 1960, v. 629 [no. 1/3] p. 1-13.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Hydrides, \*Alkyl radicals, Synthesis,  
\*Ethylene, \*Hydrogen, \*Aluminum, Chemical  
reactions.

(Chemistry--Organic, TT, v. 7, no. 1)

61-20449

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Title: Metalloorganic...

154256

Office of Technical Services

Ziegler, Karl, Gellert, Hans-Georg and others.  
REACTIONS OF THE Al-C BOND WITH OLEFINS.  
Pt. 34 of Metalloorganic Compounds, [1961] 74p.  
50 refs.

Order from SLA \$7.60

61-20458

Trans. of [Justus Liebig's] Annalen der Chemie (West  
Germany) 1960, v. 629, no. 1-3, p. 121-166.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Alkyl radicals, \*Ethylenes, Chemical  
reactions, Displacement reactions.

See also 61-20456

(Chemistry--Organic, TT, v. 7, no. 1)

61-20458

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Title: Metalloorganic...

184264

Office of Technical Services

Ziegler, Karl, Gellert, Hans-Georg and others.  
SYNTHESIS OF STRAIGHT-CHAIN  $\alpha$ -OLEFINS  
FROM ETHYLENE. Pt. 36 of Metalloorganic Com-  
pounds. [1961] 42p. 24 refs.  
Order from SLA \$4.60

61-20460

Trans. of [Justus Liebig's] Annalen der Chemie (West  
Germany) 1960, v. 629, no. 1/3, p. 172-198.

DESCRIPTORS: Metalorganic compounds, \*Butenes,  
Synthesis, \*Ethylenes, \*Aluminum compounds, \*Alkyl  
radicals, Chemical reactions, Displacement reactions,  
Catalysts, Catalysis.

See also 60-20459

(Chemistry--Organic, TT, v. 7, no. 1)

61-20460

- I. Ziegler, K.
- II. Gellert, H.-G.
- III. Title: Metalloorganic...

154266

Office of Technical Services

Ziegler, Karl, Koster, Roland and others.  
NEW COMPLEX COMPOUNDS OF ALUMINUM  
ALKYLS. Pt. 30 of Metalloorganic Compounds. [1961]  
29p. 13 refs.  
Order from SLA \$2.60

61-20453

Trans. of [Justus Liebig's] Annalen der Chemie (West  
Germany) 1960, v. 629, no. 1/3, p. 33-49.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Alkyl radicals, Chemical reactions,  
\*Complex compounds, Synthesis.

See also 61-20452

(Chemistry--Organic, TT, v. 7, no. 1)

61-20453

- I. Ziegler, K.
- II. Koster, R.
- III. Title: Metalloorganic...

184260

Office of Technical Services



Ziegler, Karl and Kroll, Wolf-Rainer.  
DISPLACEMENT AND GROWTH REACTIONS IN  
DIALKYL ALUMINUM COMPOUNDS OF THE  $R_2AlX$  TYPE.  
Pt. 35 of Metalloorganic Compounds. [1961] 8p.  
4 refs.

Order from SLA \$1.10

61-20459

Trans. of [Justus Liebig's] Annalen der Chemie  
(West Germany) [1960] v. 629, no. 1/3, p. 167-171.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Alkyl radicals, Displacement reactions.

See also 61-20458

(Chemistry--Organic, TT, v. 7, no. 1)

61-20459

- I. Ziegler, K.
- II. Kroll, W.-R.
- III. Title: Metalloorganic...

184265

Office of Technical Services

61-20455

Ziegler, Karl, Kroll, Wolf-Rainer and others.  
DISSOCIATION AND EXCHANGE REACTIONS OF  
THE ALUMINUM TRIALKYLS. Pt. 32 of Metal-  
loorganic Compounds. [1961] 57p. 31 refs.  
Order from SLA \$5.60

61-20455

Trans. of [Justus Liebig's] Annalen der Chemie  
(West Germany) 1960, v. 629 [no. 1/3] p. 53-89.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Alkyl radicals, Exchange reactions,  
Dissociation.

See also 61-20454

(Chemistry--Organic, TT, v. 7, no. 1)

- I. Ziegler, K.
- II. Kroll, W.-R.
- III. Title: Metalloorganic...

184263

Office of Technical Services

Ziegler, Karl, Krupp, Felix, and Zoel, Kurt.  
SYNTHESIS OF ALCOHOLS FROM ORGANO-  
ALUMINUM COMPOUNDS. Pt. 40 of Metalloorganic  
Compounds. [1961] 15p. 24 refs.  
Order from SLA \$1.50

61-20480

Trans. of [Justus Liebig's] Annalen der Chemie (West  
Germany) 1960, v. 629, no. 1-3, p. 241-250.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Alkyl radicals, Oxidation, \*Alcohols,  
Synthesis.

See also 61-20468

(Chemistry--Organic, TT, v. 7, no. 1)

61-20480

- I. Ziegler, K.
- II. Krupp, F.
- III. Zoel, K.
- IV. Title: Metalloorganic...

184273

Office of Technical Services

61-20463

Ziegler, Karl, Krupp, Felix and others.  
REACTIONS OF THE AL TRIALKYLS WITH CAR-  
BON DIOXIDE AND SULFUR DIOXIDE. Pt. 41 of  
Metalloorganic Compounds. [1961] 10p. 8 refs.  
Order from SLA \$1.10

61-20463

- I. Ziegler, K.
- II. Krupp, F.
- III. Title: Metalloorganic...

Trans. of [Justus Liebig's] Annalen der Chemie (West  
Germany) [1960] v. 629, no. 1/3, p. 251-256.

DESCRIPTORS: \*Aluminum compounds, \*Alkyl radi-  
cals, \*Carbon dioxide, \*Sulfur compounds,  
\*Dioxides, Chemical reactions, \*Carboxylic acids,  
\*Sulfinic acids, Acids, Production, Metalorganic  
compounds.

See also 61-20480

(Chemistry--Organic, TT, v. 7, no. 1)

184260

Office of Technical Services

61-20450

Ziegler, Karl, Martin, Heinz, and Krupp, Felix.  
ALUMINUM TRIALKYLS AND DIALKYL ALUMINUM  
HYDRIDES FROM ISOBUTYL ALUMINUM COM-  
POUNDS. Pt. 27 of Metalloorganic Compounds. [1961]  
8p. 8 refs.  
Order from SLA \$1.10

61-20450

- I. Ziegler, K.
- II. Martin, H.
- III. Krupp, F.
- IV. Title: Metalloorganic...

Trans. of [Justus] Liebigs Ann[alen der] Chem[ie]  
(West Germany) 1960, v. 629 [no. 1/3] p. 14-19.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Hydrides, \*Alkyl radicals, \*Butyl  
radicals, Synthesis, Chemical reactions.

See also 61-20449

184257

(Chemistry--Organic. TT, v. 7, no. 1)

Office of Technical Services

Ziegler, Karl, Nagel, Konrad and Pfohl, Werner.  
PYROLYSIS OF AL TRIALKYLS. Pt. 38 of Metal-  
loorganic Compounds. [1961] 19p. 5 refs.  
Order from SLA \$11.60

61-20462

Trans. of [Justus Liebig's] Annalen der Chemie (West  
Germany) 1960, v. 629, no. 1/3, p. 210-221.

DESCRIPTORS: Metalorganic compounds, \*Aluminum  
compounds, \*Alkyl radicals, Pyrolysis.

See also 60-20461

(Chemistry--Organic, TT, v. 7, no. 1)

61-20462

- I. Ziegler, K.
- II. Nagel, K.
- III. Pfohl, W.
- IV. Title: Metalloorganic...

154268

Office of Technical Services

Ziegler, Karl.  
IMPROVED CATALYST FOR PRODUCING COPOLY-  
MERS OF OLEFINS WITH HIGH MOLECULAR  
WEIGHT. [1961] 7p.  
Order from RIS \$23.00

RIS rept. 97137

Trans. of Belgian patent application 569 816, by Montecatini; Società Generale per l'Industria Mineraria e Chimica, Milan [Italy] filed 28 July 58 (priority: Italy, 29 July 57, no. 11 271).

DESCRIPTORS: \*Catalysis, \*Copolymerization, Ethylenes, Molecular weight.

(Chemistry--Organic, TT, v. 6, no. 5)

61-22973

- I. Ziegler, K.
- II. Patent Application (Belgium)  
569 816
- III. RIS-97137
- IV. Research Information  
Service, New York

Office of Technical Services

61-22974

Ziegler, Karl

PERFECTED CATALYST SYSTEM FOR POLYMERI-  
ZATION OF  $\alpha$ -OLEFINS OR OTHER HYDROCARBONS  
WITH VINYL GROUPS. [1961] 11p.

Order from RIS \$28.00

RIS rept. 97136

- I. Ziegler, K.
- II. Patent (Belgium) 572 726
- III. RIS-97136
- IV. Research Information  
Service, New York

Trans. of Belgian patent 572 726, by Montecatini.  
Societa General per l'Industria Mineraria e Chimica.  
Milan, Italy, filed 6 Nov 58 (priority: Italy, 7 Nov 57,  
no. 6193).

DESCRIPTORS: \*Polymerization, \*Catalysts, \*Ethylene  
Hydrocarbons, \*Vinyl radicals, \*Polymers.

Office of Technical Services

(Chemistry--Organic, TT, v. 6, no. 5)



61-25005

Ziegler, Karl.  
NEW PROCESS FOR REGULATING THE MOLECULAR WEIGHT OF ETHYLENE-PROPYLENE AND ETHYLENE-BUTENE COPOLYMERS. [1961] 8p.  
Order from RIS \$18.00 RIS rept. 97142

Trans. of Belgian patent application 593 590, by Montecatini Società Generale per l'Industria Mineraria e Chimica, Milan, Italy, filed 29 July 60 (priority: Italy, July 59).

DESCRIPTORS: Molecular weight, Propenes, \*Butenes, \*Ethylenes, Copolymerization, Metalorganic compounds, Polymers.

- I. Ziegler, K.
- II. Patent Application (Belgium) 593 590
- III. RIS-97142
- IV. Research Information Service, New York

Office of Technical Services

(Materials--Plastics, TT, v. 6, no. 5)

Ziegler, Karl.  
25 YEARS OF "STUDY OF TRIVALENT CARBON"  
(25 Jahre "Zur Kenntnis des Dreiwertigen Kohlen-  
stoffs"). 1958, 26p. 50 refs.  
Order from SLA m\$2.70, ph\$4.80

61-10062

Trans. of Angew[andte] Chemie (West Germany) 1949,  
v. 61 [no. 5] p. 168-179.

(Chemistry--Organic, TT, v. 5, no. 7)

61-10062

1. Free radicals--Chemical reactions
2. Organic compounds--Chemical reactions
1. Ziegler, K.

Office of Technical Services

61-22490

Ziegler, Karl.  
PROCESS FOR PRODUCING A NEW TYPE OF  
STRICTLY REGULAR POLYMERS FROM UNSATU-  
RATED MONOMERS. [1961] 23p.  
Order from RIS \$55.00 RIS repr. 97135

Trans. of Belgian patent application 585 563, 11 Dec 59  
by Montecatini, Società Generale per l'Industria  
Mineraria e Chimica, Milan.

DESCRIPTORS: \*Polymers, Synthesis, Monocyclic  
compounds, Ethylenes, Catalysts.

- I. Ziegler, K.
- II. Patent application (Belgium)  
585 563,
- III. RIS-97135
- IV. Research Information  
Service, New York

(Chemistry--Organic, TT, v. 6, no. 2)

Ziegler, K.  
THE THEORY AND PRACTICE OF ORGANOMETAL-  
LIC SYNTHESIS OF HIGHER ALIPHATIC COMPOUNDS  
FROM LOWER OLEFINS. [1961] 14p.  
Order from ATS \$22.50

ATS-21N49G

Trans. of Angew[andte] Chem[ie] (West Germany)  
1960, v. 72, no. 22, p. 829-835.

(Chemistry--Organic, TT, v. 5, no. 11)

61-22166

1. Metalorganic compounds--  
Synthesis
2. Ethylenes--Chemical reac-  
tions
1. Ziegler, K.
- II. ATS-21N49G
- III. Associated Technical Serv-  
ices, Inc., East Orange,  
N. J.

Office of Technical Services

61-10487

Ziegler, Karl and Holzkamp, Erhard.  
 ORGANOMETALLIC COMPOUNDS. XXII. MAGNE-  
 SIUM-ALUMINUM ORGANIC COMPLEX COMPOUNDS  
 (Metallorganische Verbindungen. XXII. Magnesium-  
 Aluminium-Organische Komplexverbindungen). [1960]  
 7p. 2 Fets.  
 Order from SLA at \$1.80, ph \$1.80 61-10487

Trans. of [Justus] Liebigs Annalen der Chemie  
 (West German) 1957, v. 605 (no. 1/3) p. 93-97.

A successful attempt to make magnesium-aluminum  
 organic complex compounds is reported. This work is  
 an outgrowth of research on aluminum organic com-  
 pounds and on alkali-aluminum-tetranalkyl complexes.  
 Preparation and properties of "complete" and  
 "partial" complexes,  $Mg(AlR_4)_2$  and  $R_2Mg(AlR_4)$ , are  
 described. Results show that the organic magnesium-  
 aluminum compounds form less stable complexes than  
 the corresponding alkali-aluminum compounds. How-  
 ever, interesting changes in solubility relationships  
 (Chemistry--Organic, TT, v. 5, no. 8) (over)

1. Metalorganic compounds--  
 Synthesis
2. Aluminum compounds  
 (Organic)--Synthesis
3. Magnesium compounds  
 (Organic)--Synthesis
4. Complex compounds--  
 Synthesis
- I. Ziegler, K.
- II. Holzkamp, E.
- III. Title: Magnesium...

Office of Technical Services

TT-64-10118

Ziegler, K., Häfner, F., and Grimm, H.  
STEREOCHEMICAL STUDIES. II. *cis*-1,2-DIMETH-  
YLETHYLENE FROM BUTADIENE-(1,3). [1963]

20p 25refo

Order from SLA \$1.60

TT-64-10118

Trans. of [Justus Liebig's] Annalen der Chemie]  
(Germany) 1937, v. 528, p. 101-113.

Another trans. is available from SLA as AL-842, 20p

DESCRIPTORS: \*Stereochemistry, \*Butenes,  
Ethylene derivatives, Methyl radicals, Synthesis  
(Chemistry), \*Butadienes, Hydrogenation, Catalysts  
Metalorganic compounds, \*Ziegler catalysts.

- I. Ziegler, K.
- II. Häfner, F.
- III. Grimm, H.
- IV. Title: *cis*-1,2-  
Dimethylethylene ...
- V. SLA-AL-842

(Chemistry--Organic, TT, v. 11, no. 5)

Office of Technical Services

TT-64-10117

Ziegler, K., Jakob, L., Wolthan, H., and Wenz, A.  
THE FIRST PRODUCTS OF THE ACTION OF  
ALKALI METALS ON BUTADIENE. [1963] 30p 13 refs  
Order from SLA \$2.60 TT-64-10117

Trans. of [Johann Liebig's] Annalen [der Chemie]  
(Germany) 1934, v. 511, p. 64-88.  
Another trans. is available from SLA as AL-844. 30p.

DESCRIPTORS: \*Butadienes. \*Alkali metals, Chemical  
reactions, Hydrocarbons.

I. Ziegler, K.  
II. Jakob, L.  
III. Wolthan, H.  
IV. Wenz, A.  
V. SLA-AL-844

(Chemistry--Organic, TT, v. 11, no. 5)

Office of Technical Services

Ultrasonic Measurement of Section Size of Gray-Iron  
Castings, by R. Ziegler, R. Gerstner

GERMAN, per, Giesserei, Techn. Wissensch Beihafte,  
Suppl. No 16, Sep 1956, pp 829-835.

Butcher No 3840  
\$9.85

Sci - Min/Metals  
Jan 57 CTB

42,895



Investigations of the Carbon Dioxide Process (for  
Foundries, by R. Ziegler, G. Hammer.

GERMANY, per, Giesserei-Nachrichten, No 2, May 1955,  
pp 5-12.

Henry Bratcher Tr 3696

Sci - Chemistry, Minerals/metals

May 1956

34,896

\$ 6.60

ZIEGLER R.

Stahl Und Eisen, vol. 61, 8 figures, 1 table, 1200 words; 1941.

Influence of Oxygen Content upon Sensitivity to Overheating and Abnormality of Steel.

Brutcher Trans, Order No. 1024, \$1.20

p13483

98

Velocity of Sound as a Characteristic for the  
Identification of Cast Iron, by Rolf Ziegler, Metallurgische Zeitschrift, 20 pp.  
1954, 102, Metallurgische Zeitschrift, Vol. 102, No. 8, 1954,  
pp. 181-182, 9210507.  
AEC (Int)-41-730

42

202,045

Sci-Techniques  
Sci-1/1  
Nov 65

The Velocity of Sound as Characteristic Value of  
the Quality of Cast Iron, by R. Ziegler, R. Gerstner.  
UNCL

GERMANY, rpt, From 24th International Foundry Congress,  
1957, Aug 1957, pp 133-157.

BIBI 1496

Sci - Phys  
Mar 60

(LA 15a.Oa.)

111,158

Regarding the Protective Action of Pure Proteins  
in Photodynamic Phenomena, by O. Jirovec, Z.  
Ziegler, 16 pp.

GERMAN, per, Z ges Exptl Med, Vol XC, 1933,  
pp 651-660.

S.I.A. Tr 57-386

Sci - Chemistry  
Jun 57/CTB

48,826

Zieher, Luis M. and Flacher, Edmundo.  
EFFECT OF METHOXADONE UPON THE PSYCHO-  
MOTOR ACTIVITY OF THE RAT. [1962] 4p. 11 refs.  
Order from S.A. \$1.10 62-14352

Trans. of Asoc[ion] Med[ica] Argen[tina], Buenos  
Aires]. Rev[ista] 1960, v. 74, no. 9, p. 531-533.  
Another trans. is available from ATS \$5.60 as  
ATS-05N51SP [1961] 3p.

DESCRIPTION: \*Nervous system, \*Neuromuscular  
transmission, \*Drugs.

The drug 5-(2-methoxyphenoxymethyl)-2-oxazolidone  
reduces spontaneous motor activity in white rats, in  
a statistically significant way up from 50 mg/kg of  
body weight when administered intraperitoneally. The  
maximum effects are reached practically with doses  
of 100 mg/kg of body weight. The drug proves to be  
(Biological Sciences--Pharmacology, TT, v. 8, no. 6)  
(over)

62-14352

- I. Title: Methoxadone
- I. Zieher, L. M.
- II. Flacher, E.

Office of Technical Services

Fundamentals of a General Theory of Direction Fields  
Lectures on Math, Parts I, II, and III, by G. Birkhoff.  
GEN. I, II, per. Program, Vol XVI, No 8, 11, 12, 1962,  
pp 281-293, 431, 493-510.  
Reprint 1962/1963

Library JHV/ARL 105-9

Supplement  
Sci - Aero  
Sci - Space  
Jul 63

281, 430

2.1.1.1.1.

(2551-D)

Geomagnetic Transmitter Antenna for Emergencies at  
Sea, by E. Baur, G. Klein, 33 pp.

GERMAN, par, Telefonen-Zeitung, Vol XXXI, No 121,  
Berlin, Sept 1958, pp 150-161.

JPRS L-1625-D

Sci - Biol; Geophys, soil science  
Apr 59

86,747



The Development of the Calcium Cyanamide  
Process, Albert R. Frank on his 80th Birthday,  
by K. Zinke, 9 pp.

GERMAN, per, Chemie Ingenieur Technik, Vol XXIV,  
1952, pp 609-610.

S.I.A. Tr 1189/1956

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ER - Germany  
Economic  
Sci - Chemistry  
Oct 56 CTS

(DC-5037)

Development of Health Service in the Bialystok  
Wojewodztwo, by Krystyna Zielanska, 4 pp.

POLISH, np, Sluzba Zdrowia, Vol XII, No 45,  
6 Nov 1960, p 3.

JPRS 6820

R&amp;R - Poland

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Soc

Mar 61

The Varactor, a New Semiconductor Component, by  
G. Zielasek, 4 pp.

GERMAN, per, Elektronische Rundschau, Vol XIII,  
No 10, 1959, pp 378-381.

USASIA Tr-1112

Sci - Electronics  
Mar 61

141, 414

The Effect of Various Etching Agents on Germanium,  
II. Physical Analysis, by G. Zielasck, 18 pp.

GERMAN, per, Z Metallkunde, Vol XLVI, No 3, Mar 1955,  
pp 229-233.

SLA 57-1254x 1356

May 58

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The Time-Temperature Characteristic in Electric  
Contacts, by M. Kohler, G. Zielasek.

GERMAN, per, Abhandlungen der Braunschweigischen  
Wissenschaftlichen Gesellschaft, Vol III, 1951.

A.E.R.E. Harwell Tr 635

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Sci - Electricity

39,419

The Effect of Various Etching Agents on Germanium,  
by G. Zielasek, 18 pp.

GERMAN, per, <sup>2</sup> Metallkunde, Vol XLVI, No 3, Mar 1955,  
pp 229-233.

SLA Tr # 57-590

Sci - Minerals/Metals  
Sep 57

53,991

Transportation Insurance Information by Jan  
Zielonicki and Stanislaw Szewcykowski  
POLISH, in, Zarysy Organizacji i Techniki  
Handlu Zagranicznego, 1963  
pp. 61-62, 560-576, 715-716

JUNE 1964 12094

Polish  
Economic  
Feb 67

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(NY-10)

From the Laboratory of General Work  
Organization Problems, by Jan  
Zieleniewski, 9 pp.

POLISH, per, Nauka Polska, Vol ~~XIX~~,  
No 1 (33), Jan/Mar 1961, pp 109-114.

JPRS 11937

Sci - Misc

179.107

Jan 62



The Analysis of Primary Tar From Sapropelic Shales,  
by E. Bartil, R. Zieleniewski, J. Grudzien, 29 pp.  
POLISH, per, Prace Głównego Instytutu Górnictwa,  
No 111, 1952, pp 1-20. 9094429

ONS 60-21366  
PL-430

Sci - Chem

Dec 61

177,548

Investigations on the Determination of the Integral  
Dose in X-Ray Diagnostics, by E. Zieler, 31 pp.

GERMAN, per, Fortschritte Gebiete Rontgenstrahlen  
und Nuklearned, Vol XCIV, 1961, pp 248-260.

AERE, Harwell  
NP Tr-684

167, 478

Sci  
Sep 61

Recovery of Zinc From the Blast Furnace Filter  
Dust, by H. Zieler.

GERMAN, per, Stahl und Eisen, Vol LXXV, No 15,  
1955, pp 975-978.

CRL/T 1078

Sci. M & M  
Mar 63

225,329

Preparation of Glycol by Hydrolysis of Ethylene  
Chloride, by H. Bahr, H. Zieler

GERMAN, per. Zeitschrift Angew Chem, Vol XLIII,  
1930, pp 286-289.

S.L.A. Tr Pool

Scientific - Chemistry  
CPS/DIX

14,203

CHIEF, W.

Archiv Eisenhüttenwesen, vol. 5, 12 figures, 9  
tables, 3000 words; 1931.

Diminution of Nonmetallic Inclusions in Steel by the  
Addition of Zirconium.

Deutscher Trans, Order No. 37, 13.00.

A13484

Industry of CEMA Countries After 1960, by Andrzej  
Karpinski, Bogumila Zielińska, 18 pp.  
POLISH, per, Gospodarka Planowa, No 1, 1964, pp 7-15.

JPRS 23251

EE-Sov Bloc  
Econ  
Feb 64

230,446

SOME PROBLEMS IN POLAND'S ECONOMIC DEVELOPMENT IN  
1956-1961 IN RELATION TO OTHER CEMA COUNTRIES, BY  
ANDRZEJ KARPINSKI, BOGUMILA ZIELINSKA, 19 PP.

POLISH, PER, GOSPODARSKA PLANOWA, NO 6, 1962,  
PP 1-11.

JPRS 15533

EUR - POLAND  
ECON  
OCT 62

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(2009-N)

Poland's National Income and That of Selected  
Capitalist Countries, by Bogumila Zielińska, 16 pp.

POLBIM, par, Gospodarka Planowa, No 1-2, Warsaw,  
1959, pp 60-64.

JPRS1641-N

ESur - Poland  
Econ - Finance, Natl Income  
Jun 59

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Zielinski, E.  
SUR L'EXTRACTION DE LA BETTERAVE  
A SUCRE (Betanine - the Beet Pigment). 11p. 6 refs.  
CNRS-II 163.  
Order from VTS, BIC or CNRS \$1.10 TT-62-28836

Trans. in French in Pracepani Spozycwcy (Poland)  
1960, v. 14, no. 4, p. 208-212.

DESCRIPTORS: Plants (Botany), Sugars, \*Organic  
pigments, Solvent extraction, Chemical precipitation.

(Biological Sciences) - Biochemistry. TT, v. 11, no. 9)

TT-62-28836

- I. Zielinski, E.
- II. CNRS-II 163
- III. Centre National de la Recherche Scientifique, Paris

Office of Technical Services  
European Translation Centre

On the Use of the Method of Computing Lower-L,  
by M. Zichaske, 1961.  
JOURNAL, per, ~~International Geophysics~~, Vol 8, No 1/2,  
1961, pp 75-87.  
\*OIS 1708-50003  
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